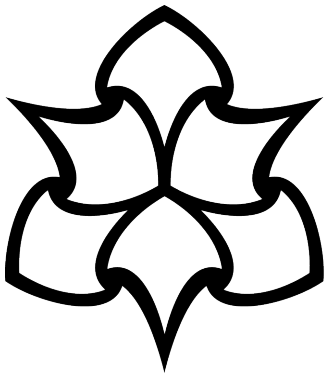

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CLINICAL AND COST EFFECTIVENESS OF PHYSIOTHERAPY INTERVENTIONS FOLLOWING TOTAL KNEE REPLACEMENT- A SYSTEMATIC REVIEW AND META-ANALYSIS

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Objectives: Osteoarthritis (OA) of the knee is the leading cause of pain and disability. When pharmacological treatments fail, total knee replacement (TKR) is recommended. Physiotherapy interventions help to reduce pain, restore mobility and function, improve quality of life (QoL), and reduce healthcare costs following TKR. This review examined the clinical and cost effectiveness of physiotherapy interventions following TKR. ***Methods:*** A systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). MEDLINE, CINAHL, AMED, DARE, HTA and NHS EED databases were searched up to September 2018. Search terms related to the clinical and cost effectiveness of physiotherapy interventions was used. Studies meeting the inclusion criteria were identified and key data were extracted. Quality assessment of the studies was performed by one reviewer and checked by a second. Random effect meta-analysis was conducted for pain, physical function and range of motion (ROM). ***Results:*** 467 studies were identified. Of these, seventeen studies were included; methodological quality of most studies was moderate. Physio-therapy interventions were more effective than control for physical function (- 0.655 [95% CI -1.262, - 0.050 p = 0.034]) and ROM (- 0.354 [95% CI -0.640, - 0.112 p = 0.015] for a follow up of 2 or 3 months and six months, respectively. It was also found that physiotherapy interventions were not statistically significant compared to the control, for pain. Physiotherapy interventions were not more effective compared to control for pain, physical function and ROM for a 1 year follow up. No evidence on the pooled estimate of cost-effectiveness of physio-therapy interventions for people with TKR was found. ***Conclusions:*** The findings of this review suggest that physiotherapy interventions were effective for improving physical function and ROM for 2 or 3 months and six months follow up, respectively. Further research should examine the pooled cost-effectiveness es-timate of physiotherapy interventions.